

MID-TERM EVALUATION  
OF THE JORDAN AGRICULTURAL MARKETING  
DEVELOPMENT PROJECT (NO. 278-0274)

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## LIST OF ACRONYMS AND ABBREVIATIONS

ACWM	Amman Central Wholesale Market
AID/W	Agency for International Development/Washington
AMAF	Agricultural Marketing Analysis Fund
AMDP	Agricultural Marketing Development Project
AMO	Agricultural Marketing Organization
AMPCO	Agricultural Marketing and Processing Company of Jordan
APAP	Agricultural Policy Analysis Project
CIP	Commodity Import Program
CY	Current Year
EEC	European Economic Community
EOPS	End of Project Status
FY	Fiscal Year
GOJ	Government of Jordan
IFPRI	International Food Policy Research Institute
JCO	Jordan Cooperative Organization
JVFA	Jordan Valley Farmers Association
MRDF	Market Research and Development Fund
MOA	Ministry of Agriculture
NCARTT	National Center for Agricultural Research & Technology Transfer
PACD	Project Activity Completion Date
ST	Short Term
TA	Technical Assistance
TDY	Temporary Duty
USAID	United States Agency for International Development (Overseas Mission)

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## EXECUTIVE SUMMARY

### A. Purpose, Procedure and Scope

Marketing inefficiencies, limited competition among buyers, and governmental policies have had a negative effect on Jordan's ability to compete, both in its traditional markets for horticultural products and in potential markets in Europe. The Government of Jordan (GOJ) requested USAID's assistance in improving the marketing system for horticultural crops, both domestic and export. The Agricultural Marketing Development Project (AMDP) was prepared in response to this request.

The purpose of the project is to improve the marketing system for Jordanian fruits and vegetables. It began on October 1, 1988 and has a Project Activity Completion Date (PACD) of September 30, 1993. The implementing agency for the project is the Agricultural Marketing Organization (AMO), an autonomous governmental agency.

The purpose of this mid-term evaluation is to enable USAID and the GOJ to determine progress made in achieving project purposes, appropriateness of the project design, and what adjustments, modifications or other changes need to be made. The evaluation was undertaken in Jordan from September 15 - October 6, 1991 by a Devres team which included an agricultural economist (team leader) and a postharvest specialist with private sector expertise, and an agricultural economist from the University of Jordan. It was six months late due to political events in the Gulf. At the time of the evaluation, the project had completed 60 percent of the time programmed in the project paper.

### B. Findings and Conclusions

- o Project design--The original project design, which contains the elements that follow, remains valid for AMDP's assistance to AMO.
- o Technical Assistance--The project has had a large input of technical assistance. Three long-term advisors were in Jordan from 2.5 to 3.5 years each--a total of about 8.5 person years to date. This is beyond the seven years originally scheduled. Also, the level of short-term consultancies has exceeded the time originally programmed. There continues to be a need for both long and short term technical assistance.
- o Training--AMO staff members have been sent to the U.S. for Masters Degree training in quality control, postharvest technology and general marketing. Another is scheduled for training in information systems.

Ten persons have undertaken short term training in the U.S. in postharvest technology, information systems, statistical methods and observation visits.

In-country training programs in grades and standards, post harvest technologies, English language, and computers have been well received by both AMO staff and the private sector.

- o Consultancies--Consultancies have covered such areas as economic policies, planning, management, training, computers, and transportation. Consultancies involving training have been well received by the AMO staff. Consultancies that did not involve AMO staff in their preparation were generally less well thought of.
- o Policy planning and analysis--The establishment of a policy and institutional framework in AMO to improve marketing efficiency--a major thrust of the project--has not been accomplished. However, certain policy areas, such as price controls, cropping patterns, and macro-economic policies have been addressed by the project. The effect of these policy initiatives by the project are not known, but some government policies have changed during the past three years, especially exchange rates, which directly improved the marketing of fruits and vegetables.

AMO's contribution to the policy process is based mainly on providing statistical data and the experience of senior personnel.

- o Planning and administration--The Strategic Action Plan has been very successful in bringing AMO staff into the planning process. The inclusion of the private sector in the planning for 1992 was a very positive move. However, the Plan has not been implemented to its fullest extent because the follow-up of tasks has been weak.

The loss of experienced AMO personnel has put an undue strain on the remaining staff and the early departure of the AMDP team leader has had an adverse effect on the management of the project.

- o Marketing studies--Little work has been done by the studies department during the life of the project. An exception was the study by AMO and project personnel which contributed to the design and operating plans for a new wholesale fruit and vegetable market in Amman.
- o Market information--The project has done a good job of beginning a domestic market information and dissemination system which covers the Amman Central Wholesale Market but not the wholesale markets in Irbid and Zarqa.

Market information from the Gulf States is very weak and will probably remain so due to the political situation in the region. Market information on European markets is not well developed in AMO.

- o Expansion and diversification of exports--Private sector exports of fruits and vegetables to Europe in 1990 were more than 50 percent above the level of private sector exports targeted in the End of Project Status (EOPS). However, total exports from Jordan to the European Economic Community (EEC) were below target levels for the same period. Total exports to the Gulf States in 1990 were 38 percent greater than in 1988, and were well above the EOPS target.

Crop diversification is proceeding very slowly and is well below target levels. Tomatoes still constitute the majority of the commodities exported to the Gulf, reaching 79 percent of the total exports in 1990. Tomatoes, cucumbers, eggplants and squash constituted 60 percent of the products exported to the EEC. However, exports of table grapes, while still small in volume, are growing rapidly.

- o Private sector interaction--Twenty-eight persons from the private sector studied fruit and vegetable marketing systems in the U.S. and in Germany. Responses from private sector participants have been very positive.

The grades and standards and postharvest training workshops were well received by private sector persons in attendance and there have been requests for additional training and assistance.

- o Institutional relationships--To date, AMO has not been successful in its attempts at helping growers and exporters to organize as legal entities to enable them to collectively pursue their interests. AMO has not fully interacted with such GOJ agencies as National Center for Agricultural Research and Technology Transfer (NCARTT), Jordan Cooperative Organization (JCO), and the Jordan Valley Farmers Association (JVFA).
- o Extension--AMO support of the extension effort has been limited due to a lack of vehicles and supplies. As a result, there is a lack of extension outreach from AMO to producers and downstream to the market, both for farmers and private sector exporters.

The number of publications developed by the project has been extensive--some were expensive, especially the market profiles.

There is no monitoring of pesticide use by farmers, nor is there a product certification system in place. These should be functions of AMO's extension department, along with other GOJ agencies.

- o GOJ financial support--GOJ financial support for AMO has fallen far short of that agreed to in the Project Agreement. Also, the government has not utilized

funds provided by USAID from Commodity Import Program (CIP) and 416 b proceeds for support of AMO, except in a minor way.

If the GOJ is unable to provide significant funding, and USAID does not continue to support the project, most of what has been accomplished to date will be lost.

- o USAID support--USAID has contributed US\$ 5.0 million to the AMDP. The project's PACD is September 30, 1993. As of September 18, 1991, more than 80 percent of USAID funds had been spent or committed.

The three long-term persons originally contracted to work in the AMDP completed their tours as of September 30, 1991 or earlier. No contracted personnel were on the project as of October 1, 1991, but an interim project manager was expected before the end of October.

- o Project status--The project has been essentially successful to date. However, several important aspects of the project purpose have not been accomplished. The institutionalization of a policy analysis capability in AMO has not occurred. Assistance to the private sector has only recently begun to show some progress. There has been no progress in the privatization of AMPCO.

### C. Recommendations

- o Technical assistance--One long term consultant, who has an institution building background, should be contracted for a two year period. Another long term consultant whose specialty is agribusiness should be contracted for two years to work directly with private sector producers and exporters. Short term technical assistance should be provided in several areas, including information management, extension, policy analysis, and pesticide residue monitoring.

Since funding is not likely to be available from AMO, or from remaining project funds, for the technical assistance recommended above, USAID should provide additional funding by amending the project paper to cover these and other needs.

- o Training--Emphasize short term training (two to four months) to enable AMO's staff to get hands-on experience in the specific areas that AMO is responsible for.

Encourage AMO to look to local institutions that can provide specialized training, either in Arabic or in English languages.

Continue upgrading the English language capability of AMO staff to make them eligible for training opportunities in English-speaking countries and to allow them to utilize publications in English.

- o Consultancies--Select consultants in close coordination with the AMO personnel who will be directly affected by the consultancies. AMO personnel should be incorporated into the work of consultants to the greatest extent possible from the beginning of the consultancy and be given credit for their contributions.
- o Planning and administration--Undertake the follow-up of activities within the Strategic Action Plan and fill vacancies in AMO's administrative structure, preferably from within the organization.
- o Policy planning and analysis--Establish a policy analysis unit in AMO and seek assistance from the University of Jordan and other sources in backstopping the unit. Among the issues that should be studied are AMPCO's monopoly role in the marketing of apples and potatoes, its tomato processing operation, and the effect on the domestic production and marketing of these crops.
- o Marketing studies--Assure that studies undertaken by the directorate are of a practical nature and meet the immediate needs of the marketing sub-sector. These studies do not have to be highly sophisticated.
- o Market information--Expand AMO's market information coverage to Irbid and Zarqa and provide market information on major commodities during the time the market is most active.

Daily market information on major markets in Europe and elsewhere should be developed and AMO should maintain an updated compendium of buyers, brokers, wholesalers, their location and financial status.

- o Private sector interaction--Continue observation tours as needed, both for private exporters and AMO personnel.

AMO should strengthen its extension service arm to enable it to more closely relate to the private sector. There should be additional postharvest/technical service training of AMO personnel and the private sector.

AMO should have bi-monthly meetings with the private sector to provide information on programs and to get feedback on the needs of the private sector. The private sector should use its influence to support AMO's programs vis a vis other government agencies.

- o Institutional relationships--Encourage AMO to take a more dynamic stance toward assisting in the formation of producer and exporter associations and should take steps to work with and assist NCARTT, JCO and JVFA in their efforts to help farmers with their marketing problems.
- o Extension--Provide mobility on a regular basis so that the extension service's agents can plan their activities with confidence.

The extension staff should receive training and technical assistance in pesticide monitoring and in product certification. These activities should be coordinated with NCARTT's staff and with the residue analysis laboratory.

Extension agents should maintain their proficiency in grades and standards and postharvest technologies and have a functional quality control manual to assist them in their work.

- o GOJ financial support--Encourage the GOJ to increase its financial support and fully utilize the CIP and 416 b funds allocated by USAID for AMO's budget support without withdrawing funds normally budgeted for AMO.

Future USAID assistance to the project should depend in part upon the GOJ more fully supporting the activities of AMO by providing an adequate budget.

- o USAID support--Continue USAID's project support and amend the project paper to provide additional funds for the technical assistance, training, commodities, administrative support and special activities that will be required. Without this additional support, much of what has been gained to date will be lost.

The project leader position should be filled by an institutional specialist who can work with AMO in organization, management and training, and be programmed for a two year period. A second long term position should be an agribusiness specialist who would work directly with all aspects of the private sector. This specialist should be programmed for a two year period.

Funding should be provided for short term assistance, especially for information management, extension, pesticide residue monitoring and policy analysis.

Overseas training, both long term and short term, should continue to be supported by USAID. AMO should utilize its personnel to the extent possible in domestic training programs.

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USAID, through the project, should support AMO in developing a capability in monitoring of pesticide residues and certification of products sold in the domestic and export markets.

USAID should insist that future efforts by the project give AMO a stronger role than it has had in the past. The project should view its main role as one of supporting AMO's efforts to become an institution that can have a positive effect on the marketing process in Jordan to the end that marketing efficiency is improved and farmer incomes increased.

## I. INTRODUCTION

### A. Project Background

Jordan produces over a million tons of fruits and vegetables annually, of which over one-third are exported, mainly to neighboring countries and the Gulf States. Production has continued to increase, putting more pressure on the need to export. However, in recent years, Jordan has faced increased competition in its export markets from countries such as Turkey, Cyprus, and Greece. These countries have taken a greater share of the market due to better quality, packaging, price and better marketing policies.

It is generally agreed in Jordan that marketing inefficiencies, limited competition among buyers, and governmental policies have had a negative effect on Jordan's ability to compete, either in its traditional markets or in potential markets in Europe. The Government of Jordan (GOJ) requested USAID's assistance in improving the marketing system for fruits and vegetables, both for domestic and for export markets. The Agricultural Marketing Development Project (AMDP) was prepared in response to this request and a program agreement was signed on September 28, 1988. A total of US \$13.3 million will be invested in the project, of which USAID will provide US \$5.0 million in grant funds. The balance will be provided by the GOJ.

The implementing agency for the GOJ is the Agricultural Marketing Organization (AMO). The AMDP started in October 1988 with the assistance of an expatriate team of three resident advisors. Short term technical assistance has been provided during the period this evaluation covered--October 1988 to September 1991. It should be noted that this evaluation was delayed beyond the project's mid-term due to events in the region which prevented it being undertaken as scheduled during the 2nd quarter of FY91.

### B. Purpose of the Evaluation

The purpose of the evaluation is to enable USAID and the GOJ to determine progress made in achieving the project purposes, appropriateness of the project design, and what adjustments, modifications, or other changes are needed to achieve the project objectives.

### C. Scope of Work and Specific Tasks

The scope of work covers three principal areas:

- o Assessment of progress in achieving project purpose;
- o Assessment of the continued relevancy and appropriateness of the project design; and
- o Specific tasks performed by the team.

This evaluation addresses and/or answers the following concerns/questions:

- o The extent to which the project has been successful in bringing about the required improvement in the policy environment and in the institutionalization of the policy planning and reform process to allow farmers and entrepreneurs to exploit profitable marketing opportunities, both domestically and in export markets;
- o The extent of the AMDP's success in building a market intelligence and information dissemination system;
- o The degree of success the project has had in introducing a system of grades and standards which improve the quality of the produce in order to reduce the loss and wastage and, thus, increase marketing efficiency and gain increased access to export markets;
- o The project's progress in upgrading the institutional capability of AMO to promote the private sector, support the policy planning and reform process, and carry out AMO's other marketing responsibilities;
- o Assessment of short and long-term training accomplished by the project in relation to the training requirements needed to achieve project objectives;
- o The level of GOJ budget support needed to attain project objectives;
- o The effectiveness of observational tours in contributing to project objectives, and recommendations for improvement;
- o Degree of project progress in achieving its purpose in production diversification into exotic crops, for which Jordan has a comparative advantage, thereby reducing surpluses of traditional crops;
- o The extent to which project objectives have been realized;
- o Has the recruitment of consultancies been well planned and in accordance with project technical assistance needs at the time? Have scopes of work been adequate? What areas need to be emphasized or changed?
- o Improvements, if any, which are needed in the management of the different project aspects or components; and
- o Factors and constraints that may have contributed to delays in realizing certain project purposes, the requirements for accomplishing major project outputs, and recommended changes deemed necessary.

D. Team Composition and Methodology

The Devres evaluation team consisted of an agricultural economist (team leader) from the U.S. and a postharvest specialist from the U.S. private sector. They were assisted by an agricultural economist from the University of Jordan. Work in Jordan began on September 15 and was completed on October 6, 1991.

The team interviewed personnel in AMO, AMDP, USAID, MOA, AMPCO, producers, dealers and exporters in the private sector, as well as officials in the Amman Central Wholesale Market (ACWM). Visits were made to the ACWM and to AMPCO facilities in the Jordan Valley. Extensive use was made of AMO and AMDP documents, reports and publications.

## II. THE AGRICULTURAL MARKETING ORGANIZATION (AMO)

### A. Background

The Agricultural Marketing Organization (AMO) has been in existence in one form or another for many years. At times in the past, it has existed as a major factor in the government's program to assist agricultural marketing; at others, it existed as a mere shell of an organization, kept in existence because of the possibility that it might be useful in the future. As marketing problems began to grow in the 1970's and 1980's, AMO was again viewed as a vehicle through which the government could more effectively assist in solving some of the country's agricultural marketing problems, especially those problems existing for fruits and vegetables. In 1987, the present Agricultural Marketing Organization came into existence as an autonomous government agency under Law No. 15 for the year 1987. According to Law No. 15, the organization "aims at formulating the marketing policies pertaining to agricultural products within and outside the Kingdom, following up their implementation and organizing and developing markets."

### B. Present Mandate

Law No. 15 mandates that, in order to accomplish its objectives, AMO undertake the following:

- o Carry out studies and research related to marketing agricultural products within and outside the Kingdom;
- o Formulate plans for exporting and importing agricultural products;
- o Specify products and quantities of agricultural products to be permitted for export and import;
- o Set specifications for agricultural products to be imported or exported;
- o Set specifications for containers of agricultural products;
- o Participate in the conduct of technical and economic feasibility studies;
- o Participate in fixing prices of agricultural products;
- o Make necessary recommendations for granting export, import and re-export permits; and
- o Supervise and organize marketing activities in the assembly, storage and selling places for agricultural products.

C. Administrative Structure

The administrative structure of AMO is shown in Figure 1.

The Board of Directors consists of the following:

Minister of Agriculture, President  
Director General of AMO, Vice-president  
Representative of the Ministry of Agriculture (Under-Secretary)  
Representative of the Ministry of Trade and Industry  
Representative of the Ministry of Supply  
Representative of the Occupied Territories (Minister of External Affairs)  
Representative of the Customs Department (Minister of Finance)  
Director General of the Jordan Cooperative Organization  
Three persons experienced and specialized in agriculture and marketing  
(Appointed by the Cabinet upon recommendation of the Minister of  
Agriculture)

It should be noted, that although AMO has a broad mandate for the marketing of all agricultural products, at the present time it is concerned only with the marketing of fruits and vegetables.

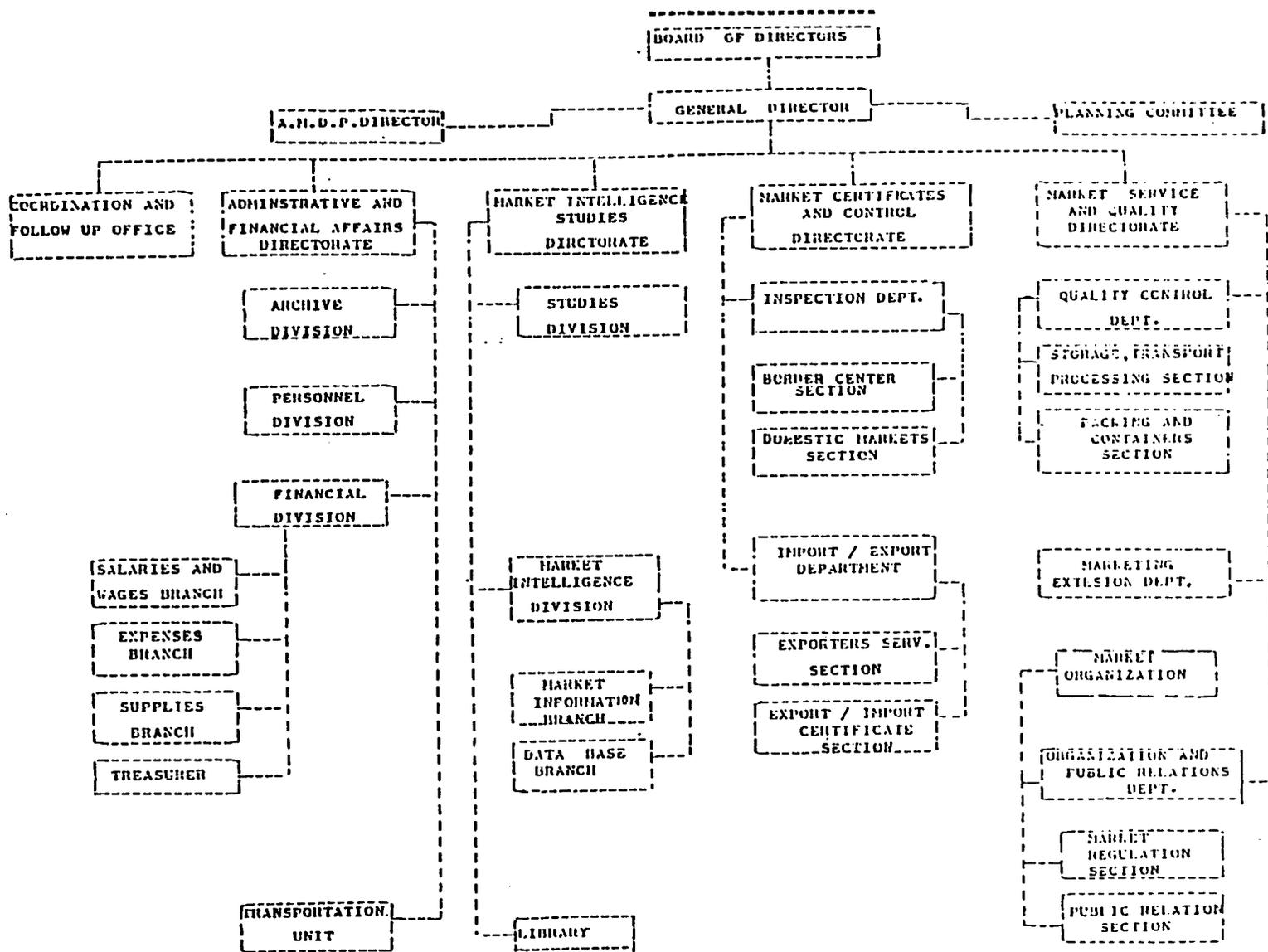


Figure 1: Administrative Structure of AMO

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### III. THE AGRICULTURAL MARKETING DEVELOPMENT PROJECT (AMDP)

#### A. Project Purpose

The purpose of AMDP is to improve the marketing system for Jordanian fruits and vegetables. To do this AMDP will assist AMO in developing an institutional and policy framework. The AMO will have the primary responsibility for project implementation.

#### B. Major Project Components

AMDP's major components include:

- o Strengthening the institutional capacity of AMO;
- o Supporting AMO's marketing operations through a number of institutional mechanisms and technical assistance; and
- o Assisting AMO in providing a rigorous policy review and planning process through policy planning workshops.

#### C. Technical Assistance Activities

Major project activities through which AMDP will assist AMO are:

- o Import demand analysis;
- o Development of a domestic market information system;
- o Establishing grades and standards;
- o Organization of voluntary marketing associations;
- o Marketing extension for fruits and vegetables;
- o Pilot experiments in
  - Privatizing government-owned market facilities and
  - Seeking alternatives to current wholesale marketing systems;
- o Increasing AMO's institutional capacity to undertake, coordinate and manage research and analysis on major policy issues and formulate recommendations; and

- o **Sponsoring policy planning workshops (up to five during the life of the project).**

#### IV. PROJECT EVALUATION

##### A. Success of the Project in Achieving Project Purpose End of Project Status (EOPS)

The project purpose is to establish a policy and institutional framework which will improve marketing efficiency and allow Jordanian farmers and businessmen to exploit profitable marketing opportunities, both domestically and in the Gulf area.

##### 1. Policy reform undertaken regarding price deregulation of selected fruits and vegetables

The project contracted consultant services to analyze the impact of price regulations on fruit and vegetable marketing.<sup>1</sup> Price controls had been in effect for many years but, in December 1985, the GOJ eliminated these controls. Three months later these controls were reinstated. The analysis attempted to show the effects of these controls on quality, consumer purchases, exports, farmers' incomes and the overall efficiency of marketing. These results were presented at a policy workshop in March 1990. The recommendation advocating that retail price controls be eliminated was not accepted by the GOJ. AMO has not renewed its efforts to further analyze this policy question and present it to the government.

##### 2. Operational efficiency of the Amman Central Wholesale Market (ACWM)

The project has assisted AMO in making a performance evaluation of fruit and vegetable wholesale markets in Jordan.<sup>2</sup> The report from this study has been utilized by the management of the ACWM in its planning for a new market to be built in Amman in the near future. The manager of the market told the evaluation team that the study had been of value and that about 70 percent of the recommendations were considered useful in planning for the new market. He also said that further assistance would not be needed until the new market is finished. The results of the market study were presented at an AMO policy workshop in March 1990.

##### 3. Cropping pattern system

The Ministry of Agriculture (MOA) instituted a cropping pattern program in 1985 to control the production of certain vegetables. The controversial program continued

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<sup>1</sup>Quezada, Norberto A. and L. Brown. Evaluation of the Impact of Price Regulation on Fruit and Vegetable Marketing in Jordan. AMO/AMDP. Amman. Feb. 6, 1990

<sup>2</sup>Harrison, Kelly et al. Performance Evaluation of Fruit and Vegetable Wholesale Markets in Jordan. AMO/AMDP. Amman. Dec 1989.

until late 1989 when it was gradually phased out. The AMDP brought in a team of consultants to analyze the effects of this program on the Jordanian economy.<sup>3</sup> The results were presented at a policy workshop in March 1990 which was sponsored by AMO and the project.

4. Private sector exports to EEC markets

According to the EOPS, private sector exports to EEC markets should comprise at least 50 percent of total Jordanian volume in these markets. An analysis of AMO data shows that in 1988 approximately 2300 metric tons (MT) of fruits and vegetables were exported to Europe by the private sector. AMPCO shipped 1686 MT to this market. In 1990, the private sector exported 3273 MT to the EEC; AMPCO exported 1545. In both periods, over 90 percent of the products exported were vegetables. Exports of vegetables in 1990 were almost double those of 1989. Apparently, exporters who could not send their products to the Gulf states because of the political situation, found markets in Europe for some of their products. It is unlikely that AMO/AMDP efforts so far have contributed much to the increasing exports to Europe but AMO's efforts have resulted in an increased interest of the private sector in the services AMO has to offer.

5. Total volume of fruit and vegetable exports to the Gulf area and to the EEC

According to the EOPS, total volume of fruit and vegetable exports to the Gulf area and to the EEC should increase to 225,000 MT and 18,000 MT, respectively, by the end of the project. Exports to the Gulf and the EEC are shown in Table 1. It can be seen that the total exports had already exceeded the EOPS by 1988 and almost doubled the EOPS by 1990 for non-EEC exports. Exports to the EEC remain far below the targets established in the EOPS and are not likely to reach the targeted level during the life of the project. However, the trend of these exports is positive and increases can be expected.

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<sup>3</sup>Bessler, David A. and B.A McCarl. An Assessment Of The Economic Impact of Jordanian Agricultural Cropping Pattern Program. AMO/AMDP. Amman. Nov 1989.

Table 1: Exports from Jordan to the Gulf and the EEC (000MT)

Destination	1988		1990	
	Vegetables	Fruit	Vegetables	Fruit
Gulf	270.9	91.5	411.7	88.0
EEC	2.2	0.1	4.5	0.3
Total	273.1	91.6	416.2	88.3

Source: AMO

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## 6. Diversification of fruit and vegetable exports

The EOPS targets increases diversification in fruit and vegetable exports so that traditional crops such as tomatoes, cucumbers, eggplants and squash constitute less than 30 percent of the total exports in the Gulf and 40 percent in the EEC. In 1990, total exports of vegetables to the Gulf area were 411,670 MT. Of these, 79 percent were tomatoes. Most of the other vegetables were cucumbers, squash and eggplants. Shipments of these four vegetables contributed 60 percent of the volume exported to the EEC in 1990. The efforts of the project toward crop diversification is relatively recent and such efforts often require years before significant progress is made. It is not likely that these goals will be reached by the end of the project, especially for the Gulf States. Some progress is likely for the EEC market.

### B. Assessment of the Continued Relevancy and Appropriateness of the Project Design

The project design calls for:

- o Demand analyses for the Gulf and the EEC;
- o Development of a domestic market news system;
- o Establishment of a system of grades and standards;
- o Organization of marketing associations;
- o Development of extension activities;
- o Promotion of the private sector through privatization of governmental marketing facilities;
- o Improvement of AMO's institutional capability to conduct policy research and analysis; and
- o Assistance to the AMO through training programs designed to upgrade its personnel to meet the needs of the marketing sector.

The project design addresses the needs of AMO and the private sector at this time. The main addition should be for AMO to address the issue of pesticide residues and product certification. As will be pointed out in the conclusions and recommendations section, the project is still a long way from meeting its goals.

## C. Special Concerns/Questions

### 1. Project progress toward improving the policy environment and the institutionalization of the policy planning and reform process

The project has provided technical assistance in bringing consultants to Jordan to prepare papers on current policy questions and to discuss these in policy workshops sponsored by AMO. Further discussions were scheduled for a policy workshop which was postponed because of political problems in the region.

Generally, the policy questions addressed by the consultants had been under discussion by the GOJ. The reports and discussions in the policy workshops probably had an effect on the GOJ's decisions, especially the report dealing with the effect of exchange rates on exports of horticultural products. The cropping pattern was already being phased out by the time the policy workshop was held. The report on price control of fruits and vegetables did not change the government's policy on price controls, but may in the future.

For the most part, the policy papers prepared by consultants did not involve the participation of AMO staff. The team could find no concrete evidence of AMO having an institutional capability to undertake policy planning and analysis. The most AMO can do is to provide some statistical data on volumes, prices and trends and to inject individual experience and knowledge into discussions of policy issues. The inability of AMO to conduct formalized policy analysis is unfortunate since AMO should be the central point for originating, analyzing and presenting policy issues with regards to fruits and vegetables. It is recognized that the building a policy capability within any organization takes a considerable length of time, and is not always successful, but AMO should start now to formalize the process within its organization.

### 2. Project progress toward building a domestic market intelligence and information dissemination system

During the past year and a half, the Market Information Section of AMO has begun gathering daily price and volume data on 10 major fruits and vegetables at the ACWM. This information is placed on a computer located in the AMO office at the market. The information is printed in Arabic and English. The Arabic version goes to three newspapers in Amman where it is printed directly from the format provided by AMO. A copy of the report, prepared in narrative form in Arabic, goes to a local radio station where it is broadcast daily around 5:30 p.m. The English version of the report is FAXED to AMO where it is used internally. No information is provided on the course of prices during the market. Plans are underway to expand the computerized market information system to include the wholesale markets at Irbid and Zarqa.

A system for building a market intelligence and information dissemination system for the Gulf States is not in place due to the lack of internal data collection systems in these countries and the lack of free access to data that are available. Most of the information on the Gulf States resides with Jordanian exporters who are reluctant to divulge the information on any consistent basis.

While some information has been assembled on markets in the EEC, no firm market intelligence system is in place.

### 3. Project progress toward introducing grades and standards

Based on interviews with producers, agribusiness entities in the Jordan Valley, exporters, MOA and AMO personnel, and from a review of technical reports and file memoranda, the evaluators consider the postharvest work on grades and standards well done. Responses from producers, exporters and the MOA have been very positive as to subject matter, training and in field assistance.

Three workshops representing nine workdays relating to European standards and grades for 10 commodities were presented by the project specialist with the support of AMO personnel. Fifty-nine AMO inspectors, quality control, and extension officers attended the workshops. All participants received copies of the Arabic translation of the OECD/EEC standards and grades prepared by AMO. Workshop topics included the minimum requirements in qualification and definition, maximum tolerances, packaging and identification, etc. Following the presentation for each commodity, the participants played the roles of both exporter and inspector in the practical application or approximate real life situation.

An additional workshop was conducted in the Jordan Valley, specifically for producers/shippers, to provide a hands-on experience and to strongly impart the concept of meeting European grades.

A most important result of an effective grade and standard program is the reduction of postharvest losses. Immature or over mature commodities and non-standard containers can contribute five to twelve percent to product loss during the field to packing phase. Failure to sort out produce with serious defects, inappropriate packaging and inappropriate cleaning, can result in a further five to fifteen percent product loss.

While the initial training and subject matter material used reflect significant accomplishments of the project, the following issues require continued follow-up.

- o A one-time training will not do. Inspectors have requested additional training but there has been no action to date.
- o All standards are not in place due to a hold up outside of the AMDP.

- o There is a need for a functional quality control manual.
- o Two very important subjects appear to have been overlooked by the AMDP team: pesticide residues and export produce certification. (Refer to Annex No. 7.) Apparently the issue of possible chemical contamination of crops to be exported has been neglected. The safety features that embody the modern marketing chain have now developed to a point that some import countries require product certification or require testing reflecting the requirement for minimum residues. For this reason, AMO needs to examine and address this most important issue.
- o Initial training should not be allowed to retrograde. Workshops should continue on a quarterly basis for the next half year and then continue on a semi-annual basis with small group participation.
- o Training must relate to actual commercial conditions and situations so that exporters will be better equipped to deal with market-wise entrepreneurs.
- o Inspectors should be exposed, through a training rotation program, to air cargo, central market, exporter and importer receiving stations, and repacking stations.
- o A program for food safety and certification for pesticide residues should be developed.

If Jordan is to establish a significant niche in a sophisticated market, consistent quality is required. In order to maintain quality over the long haul, and to avoid tampering, or a negative self-justification to lower "the standard" from time to time, the imposition of mandatory grades should be examined, reviewed by governing bodies and adopted. Interviews revealed that the majority of exporters agreed on the need for mandatory grades. Meanwhile, it is essential to provide continued grading instruction and application, and assistance in targeting mandatory grading for exporters.

4. Project progress toward upgrading the institutional capacity of AMO to promote the private sector and carry out its marketing responsibilities

Most of AMO's operating departments have some contact with the private sector, either through the permitting of imports and exports or through direct efforts to assist them in marketing fruits and vegetables. The issuing of permits mandated in the Act, automatically requires that the private sector interact with AMO. The efforts to assist in grades and standards, transportation problems, market intelligence, etc. require an outreach effort by AMO.

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The hands-on training provided to some exporters, as well as their participation in observational tours, has provided additional linkages. The team met with approximately 25 private sector exporters and potential exporters to the EEC market. The general reaction of this group was that AMO had been most helpful and could be of more assistance in the future.

The institutional capacity to assist the private sector is limited by the lack of persons adequately trained to address the private sector's problems. This is being slowly remedied as AMO personnel receive training, both domestically and overseas and gain experience on the job.

#### 5. Long term and short term training

The training program outlined in the project paper called for one person to be trained at the PhD level and seven at the Masters level. In addition, there were to be 21 person months of short term training, both in Jordan and out of the country.

In April 1989, AMDP brought in a training consultant to study AMO's specific training needs, given the staff it had at the time and which it proposed to hire in the near future. A training program that would cover the following was proposed:

- o Long term academic training outside the country, leading to MS degrees in:
  - Quality control
  - Information systems
  - General marketing
  - Postharvest technology
  
- o Short term academic training, both in Jordan and outside, including:
  - Special workshops
  - Observational tours
  - English language training

The training program which was adopted modified the long term training program projected in the Project Paper, giving more emphasis to short term training and workshops. Given AMO's pressing need for trained personnel, the revised program was appropriate.

To date, three persons have been sent to the U.S. for training at the Masters level, one of whom returned in September 1991. Another person has been approved and is awaiting acceptance by a U.S. university. Another AMO employee, originally scheduled for an MS program, has been sent for an intensive study/work program.

Ten AMO employees have participated in workshops, short courses, and hands-on training in the U.S. Two more are scheduled to leave in September for two months of training in statistical methods.

English language training has been necessary to bring AMO's employees' language skills up to levels that will enable them to study in the U.S. and other English speaking countries. English language training has taken place as follows:

Sight and Sound	29 trainees
American Language Center	22 "
British Council	1 "
Yarmouk University	3 "
Yarmouk Center	2 "

Computer training began early in the project and is an on-going program. The following shows the extent of this training during 1988-1990:

Jordan University	20 trainees
Training at AMO	22 "
Computeach	10 "
Abd. Hamid Shuman Ctr.	1 "
Khawarismi College	1 "
SRD Computer Training	11 "

Observation tours constituted an important aspect of AMO's training program and enabled AMO to more closely interact with the private sector as well as expose its own employees to the type of markets exporters will face. Tours were made to the following countries:

Germany	Feb. 1989	8 private sector 1 AMO
U.S.A.	Oct. 1990	10 private sector 1 AMO
Turkey	Oct. 1990	10 AMO 1 AMPCO
Morocco	Nov. 1990	13 AMO

Twenty-five of AMO's staff participated in a management course and others have participated in the Strategic Planning Seminar held each year beginning in 1988. The number attending the Strategic Planning Seminars are shown below:

1988	11 AMO participants
1989	14 " "
1990	19 " "
1991	18 " "
	4 private sector
	1 ACWM

The 1991 Strategic Planning session (for CY 1992) included four persons from the private sector and one from the Municipality of Amman (the manager of the ACWM ). This represented an important new dimension to AMO's planning process.

A total of 22 person months of short term training has been accomplished to date, with an additional 3.5 person months scheduled through CY 1991. The original training budget was US \$600,000. This has been adjusted during the past three years and currently US \$425,000 has been earmarked for training, US \$374,000 of which has been used or committed.

The training component of the Project Paper has been vigorously pursued and has resulted in a significant number of AMO personnel being trained. Some academic training is just beginning and will continue through the life of the project. The large training needs of AMO that existed at the beginning of AMDP's assistance has affected AMO's ability to respond to current demands. This is the price an organization has to pay to overcome a shortage of skills needed to carry out its mandate. Training is a continuing process and AMO will have to see that the training that has taken place will be enhanced in the future. There is already evidence that some training skills, e.g., computer capability, are being lost due to lack of use.

6. GOJ/USAID budget support

USAID has committed US\$ 5.0 million to the project; the GOJ has committed US \$8.27 million, for a total project cost of US \$13.27 million. The current status of the USAID commitment as of September 18, 1991 is as follows:

	<u>Obligated/ Earmarked</u>	<u>Committed*</u>
	000\$US	
Tech. Assistance	2,885	2,707
Training	425	374
Equip/Commodities	400	256
Ag. Mktg. Anal. Fund	300	265
Mkt. R & D Fund	680	518
Evaluation	100	0
Contingency	210	0
	<u>5,000</u>	<u>4,120</u>

\* Rounded  
Source: USAID

Most of the line items shown above have changed from the original project paper budget. For example, the technical assistance component has been increased from US \$2.2 million to US \$2.9 million. The Agriculture Marketing Analysis Fund has decreased from US \$0.8 million to US \$0.3 million.

The project has completed three years of the five years programmed in the project paper and approximately 80 percent of the USAID funds have been used or committed through December 31, 1991.

The GOJ's contribution to the project to date has been as follows:

CY	GOJ Commitment to AMO(JDs)	
	Budget	Actual
1988	350,000(year)	79,580(4 mos.)
1989	266,000	253,528
1990	274,400	257,387
1991	265,000	270,820
		881,315 JD

Using an average exchange rate of US \$1.00 = JD 0.68, the government's contribution has been approximately US \$1.3 million to date. This is only 15 percent of the government's commitment to the project.

The fact that the project has completed 60 percent of the time scheduled, while USAID's financial contribution to the project has used about 80 percent of the funds, is to be expected for a project that requires a large up-front investment in training and commodities. The need for these items will be less during the remaining life of the project. The question is whether enough funds are available to enable the project to assist AMO in capitalizing on the investments made to date. This will be discussed more fully in the Recommendations.

The large short-fall in the government's commitment to the project can partly be explained by the severe financial situation it has faced in the past three years. It helps explain AMO's failure to reach a higher level of performance within the marketing sector.

Given the limited ability of AMO to utilize large amounts of funds during the early stages, it was probably prudent for the GOJ to reduce its contribution. Unfortunately, it reduced its contribution well below what could have been utilized. Now that USAID funding is considerably limited, the GOJ will have to increase AMO's budget or risk losing much of what has already been invested in AMO during the past three years. USAID should consider further assistance to the project if the GOJ is truly willing to increase AMO's budget. The fact is the GOJ has failed to utilize funds earmarked by USAID from CIP and 416 b sources for AMO's budgetary support. This should be fully discussed when AMO's CY 92 budget is finalized and in any future discussions with USAID.

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## 7. Effectiveness of promotional tours

A total of five promotional tours were undertaken by the project. Their objective was to improve the experiences of AMO personnel and the private sector relative to new aspects of production methods, agribusiness infrastructure, quality control factors and marketing inputs.

- o Eleven exporters went to Germany to participate in the project's "Green Week" test program;
- o Ten exporters went to California for observation of the agribusiness sector;
- o Thirteen AMO staff members went to Morocco to observe export marketing arrangements for fresh fruits and vegetables; and
- o Nine AMO employees and one from AMPCO went to Turkey to observe the fruit and vegetable industry infrastructure.

## 8. Extent of product diversification into exotic crops

Traditionally, Jordan has exported eggplants, green beans, peppers, tomatoes, squash, and melons to the Gulf market. These are among the commodities the SRD consulting firm has recommended for Europe. These cannot be considered as exotic crops.

The reported high prices and open market windows for **asparagus** has attracted Jordanian producers. This is a high cost investment crop requiring special production inputs.

The recent vineyard plantings of the "Superior" variety of **grape**, and increased volume of exports to Europe, represents an encouraging development in the private sector. Grape exports to Europe for the next marketing season are estimated to exceed 2000 MT. The wholesale price in 1990, per five kg. box, was approximately 11 English Pounds. A project memorandum indicates a shipper profit of JD 1.300 per kg.

The private sector has increased **apple** production to a respectable level. There are four recently established orchards, with a total of 2,590 dunums (259 has.). Producers imported French and Bulgarian tree stocks and expertise. The present outlook appears very promising, but downstream there is the question of internal competition from AMPCO which has a monopoly to import apples. It would be unfortunate if AMPCO used this monopoly to undermine the budding apple industry. This is a policy issue that should be thoroughly researched and presented to the government.

9. Planning and appropriateness of consultancies

The project has used a large number of consultants during the past three years. (See Annex 9 for a list and a brief description of the nature of these consultancies.) These consultancies have addressed special problems facing Jordan. Five involved staff training, three involved upgrading facilities, three addressed policy matters, one involved export promotion and one addressed transportation problems.

Some of these consultancies involved AMO staff, but most did not. This is unfortunate since an opportunity was lost to train AMO staff in project development and analysis, as well as to provide an opportunity to be on the author list. This is important as AMO builds its staff and its prestige.

Some of the consultancies, such as the ASAC report on fruit and vegetable processing, did not contribute much. The SRD reports, while generally good for encouraging interest in the EEC market, did not take the analysis far enough to be fully useful to the Jordanians who are exporting or who plan to export to the EEC. Some were basically scaled to contribute to policy seminars sponsored by the project and AMO. These reports and presentations provided platforms for discussion among a large number of government officials and private sector persons.

10. Improvements in management of different project aspects

The project start-up targets have been fairly well placed. The project has now entered the "productive stage" in that project management needs to make things happen. For example, in the area of technical assistance, workshop activities, out of country field trips, test shipments, technical publications, and grower contacts must be examined and summarized for in-field application. One approach would be to provide for a committee representing the export sector to synthesize AMO/AMDP post harvest/market contributions, and determine practical applications and enforcement where necessary. This committee could meet with AMO at regular intervals to provide its input.

Project management must continue the training process, particularly for grades and standards. The postharvest workshop training must now be applied to the commercial sector. Self reliance can only develop with active field experience. The project specialist should monitor his trainees from time to time to determine effectiveness.

11. Factors and constraints that may have contributed to delays in realizing certain project purposes

The primary constraint contributing to delaying certain project objectives was the political action in the Gulf, a non-controllable factor. The project team members were

relocated to Cyprus for approximately six weeks. The psychological aspects during this period of uncertainty was not conducive to program progress.

A second constraint was the loss of several of AMO's of the more experienced marketing persons. Replacement of this expertise is time consuming. The departure of the AMDP project manager had an adverse effect on the management of the project. Other factors that had a direct effect on the program were related to the problem of GOJ funding.

Finally, the frequent changes in Ministers of Agriculture must have a negative on agricultural development and on AMO's operation. There have been six Ministers of Agriculture during the life of the project.

12. Requirements for accomplishing the major project outputs and recommended changes deemed necessary

(See Section VI, Summary of Findings, Conclusions and Recommendations.)

## V. SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

### A. Project Design

- o The project design, which contains the elements that follow, remains valid for AMDP's assistance to AMO.

### B. Technical Assistance

#### 1. Findings and conclusions

- o The project has had a heavy input of technical assistance. Three long-term advisors were in Jordan from 2.5 to 3.5 years each (a total of about 8.5 person years to date. This was well-beyond the time originally programmed (7 years). Also, the level of short-term consultancies has already exceeded the time originally programmed.
- o Although the government and USAID agreed to the extensions of long term personnel, there has been feedback that some of the long-term and short-term technical assistance was not necessary. However, the extensions were justified because continued leadership and assistance from the project were considered necessary.
- o Short term technical assistance will be required in several areas, including information management, extension, and policy analysis.

#### 2. Recommendations

- o Contract one long term consultant who has an institution building background until the end of the PACD.
- o Contract a long term consultant whose specialty is agribusiness for two years to work directly with private sector producers and exporters. He should have on-going practical/commercial experience as a multi-crop producer (farmer), in crop scheduling, operating a packing shed, precooling, quality control, transportation and in marketing. He would also work with AMPCO, especially in seeking ways the private sector can utilize AMPCO's existing market facilities in an economically feasible way.
- o Develop a mechanism to ensure closer coordination between AMO, the National Center for Agricultural Research and Technology Transfer (NCARTT), and the Jordan Cooperative Organization (JCO). Both, NCARTT and JCO have activities that directly relate to marketing and could use AMO's assistance.

- o Provide additional funding by amending the project paper to cover the technical assistance recommended above and other needs.

## C. Training

### 1. Findings and conclusions

- o Most of the AMO staff are young and relatively untrained and require very practical hands-on training to gain experience and confidence. AMO cannot afford, at this stage, to have a large number of its staff away for long periods. The restructured training plan which reduced long term training was a move in the right direction.
- o The long-term training programs that have been developed generally conform to the needs of AMO. AMO staff have been sent to the U.S. for MS training in quality control, postharvest technology and general marketing. Another is scheduled for training in information systems. The person taking a Masters Degree (MS) in general marketing felt he should have received more practical training along with his academic program.
- o Short term training was tailored to the needs of AMO's employees who participated. This type of training should be emphasized in the future since five to six persons can receive specific hand-on training for the cost of one who receives an MS degree.

### 2. Recommendations

- o Develop a long-term training plan which takes into account the AMO's need to train some of its personnel at the MS level. However, not more than one or two of its staff should be away from AMO at any one time on extended overseas training.
- o Emphasize short term training (2-4 months) to enable AMO's staff to get hands-on experience in specific areas that AMO is responsible for. Some of AMO's staff should be sent to work with agribusiness firms in the U.S. or Europe, that have integrated operations. An employee should be expected to stay with the agribusiness firm through one production marketing cycle and be exposed to the full operation. This will normally require four to six months.
- o Look to institutions in the area that can provide specialized training in Arabic or English. The University of Jordan can provide some types of training required by AMO personnel.

- o Encourage AMO staff to continue upgrading their English language capability so as to be eligible for training opportunities in English-speaking countries.
- o The amended project paper should take into consideration the continuing need for long term and short term training, and provide additional funds to cover this activity.

D. Consultancies

1. Findings and conclusions

- o Consultancies have covered such subjects as economic policies, planning, management, training, computers and transportation.
- o The consultancies contracted by the project have generally provided the services contracted for, and followed the scopes of work they were given.
- o Consultancies involving training activities have been well-received by AMO staff. Training in computers, management development and strategic planning have increased the ability of AMO staff to perform their work and to better understand AMO's role in agricultural marketing.
- o Consultancies that did not involve AMO staff in their work were generally less well thought of than in those few cases where AMO staff was involved. These consultancies were often spoken of as "of little use", or "our shelves are filled with pretty reports that are gathering dust".

2. Recommendations

- o Target carefully outside consultants and make selections after close consultation with the AMO personnel that will be directly affected by the consultancy.
- o Incorporate AMO personnel into the work of consultants to the greatest extent possible. AMO personnel should be given credit for their contributions.
- o Use consultants from Jordan for those activities for which local consultants have the required capability.

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E. Planning and Administration

1. Findings and conclusions

- o The Strategic Action Plan has been very successful in bringing AMO staff into the planning process. The inclusion of the private sector in the planning for 1992 was a very positive move.
- o The Strategic Action Plan has not been implemented to its fullest extent because the follow-up of tasks has been weak.
- o The loss of experienced personnel has put an undue strain on the remaining staff.
- o The early departure of the AMDP team leader has had an adverse effect on the management of the project.

2. Recommendations

- o Undertake the follow-up of activities within the Strategic Action Plan (A monthly review is planned for CY 92. This may be too often, but such a review is necessary if AMO is to improve its performance).
- o Fill the vacancies in AMO's administrative structure, preferably from within the organization.

F. Policy Planning and Analysis

1. Findings and conclusions

- o AMO has not developed an institutional capability to undertake policy planning and analysis. This was a major component of the AMDP.
- o Consultants who made analyses of policy issues rarely involved AMO personnel in the process.
- o AMO's contribution to the policy process is based mainly on statistical data and individual experiences of senior personnel.

2. Recommendations

- o Establish a policy analysis unit in AMO. This will require two new positions and backup support for the unit from the market intelligence and studies directorate.

- o Seek assistance from the University of Jordan in backstopping the policy planning unit. Other sources of assistance could be the AID Agricultural Policy Analysis Project (originally slated to be a part of the project), and the International Food Policy Research Institute (IFPRI).
- o Undertake studies of issues such as AMPCO's monopoly role in the marketing of potatoes and apples, the operation of the tomato processing plants, and the effect of these on domestic production and marketing.

#### G. Marketing Studies

##### 1. Findings and conclusions

- o Little work has been done by the studies department during the life of the project. (An exception was the work on wholesale markets, which was well done).
- o The studies department has a list of projects that it wishes to undertake but these have not yet been approved for implementation.
- o The data base branch of this directorate is rapidly adding to the information stored in its computers and can better assist marketing studies.

##### 2. Recommendations

- o Assure that the studies undertaken by the directorate are very practical and meet the immediate needs of the marketing sub-sector. These studies do not have to be highly sophisticated at this time.
- o Undertake a study on the real cost of producing and marketing selected horticultural crops in Jordan's export markets. Other studies such as direct marketing by farmers should be undertaken. This latter study could determine proper locations if such markets prove to be feasible.
- o Provide outside assistance to the studies department should such assistance become necessary.

#### H. Market Information

##### 1. Findings and conclusions

- o The project has done a good job of beginning a domestic market information and dissemination system.

- o Present market coverage includes the Amman Central Wholesale Market but not markets in Irbid and Zarqa.
- o The market reporting system needs to expand the information provided by including some indications of the quality of produce being sold at various prices, information on quantities being sold, market trends and information on movement to export markets.
- o Market information from the Gulf States is very weak and will probably remain so due to the political situation in the region.
- o Market information on European markets is not well developed in AMO. Current information on these markets is necessary if the private sector is to have better success in these markets.

2. Recommendations

- o Expand AMO's market information coverage to Irbid and Zarqa.
- o Provide market information on major commodities during the time of the market period. This could be done by posting prices at a prominent location within the market. This innovation should coincide with the opening of the new market.
- o Develop daily market information on major markets in Europe and elsewhere.

I. Private Sector Interaction

1. Findings and conclusions

- o Observation tours were an important means of AMO interacting with the private sector. Twenty-eight persons from the private sector were exposed to the marketing systems in the U.S. and in Germany. Responses from those in the private sector that participated in the tours have been very positive.
- o The grades and standards and post harvest training workshops were well received by the private sector. There have been requests for additional training and assistance from field production to the packing shed level. The private sector desires more "practical" assistance and, as one put it, "less paper and talk".
- o Efforts are being made by AMO to assist the private sector exporters in organizing to promote their special interests.

2. Recommendations

- o Continue observation tours as needed, both for the private sector and for AMO personnel.
- o Strengthen AMO's extension service arm to more closely relate to the private sector. Transport, supplies and equipment should be provided by AMO to enable extension personnel to perform their duties.
- o Continue postharvest/technical service training of AMO personnel and the private sector. This is needed to maintain continuity of action and response to marketing needs. TDY assistance should be provided by the project as needed.
- o Institute bi-monthly meetings with AMO and the private sector to provide information on programs and to get feedback on the needs of the private sector. For its part, the private sector should use its influence to support AMO's programs vis a vis other government agencies.
- o Have the agribusiness consultant work closely with AMO and AMPCO in seeking ways AMPCO's operations can be privatized and/or made to operate more economically and efficiently.

J. Institutional Relationships

1. Findings and conclusions

- o To date, AMO has not been successful in its attempts at helping unorganized growers and exporters to organize as legal entities to enable them to collectively pursue their interests.
- o Development of organizations is a specialized area and AMO has not devoted sufficient resources to carry out this mandate.
- o AMO has not fully interacted with other GOJ agencies, such as NCARTT, JCO, and the JVFA.
- o AMO has worked with AMPCO in some of the latter's export programs but has made no progress in enabling AMPCO to privatize its operations.

2. Recommendations

- o Encourage AMO to take a more dynamic stance toward assisting in the formation of producer and exporter associations. Technical assistance should be sought to assist in the organizational process, especially from organizations that

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have had considerable experience in such activities. ( For example, a number of marketing organizations have been organized in Cyprus and assistance may be obtained from them).

- o Encourage AMO to take steps to work with and assist NCARTT, JCO and JVFA in their efforts to help farmers. (These three institutions work mainly with small farmers throughout Jordan).

## K. Extension

### 1. Findings and conclusions

- o There is a real lack of extension outreach from AMO to producers and downstream to the market. AMO should be the major vehicle for addressing agricultural marketing issues and its extension personnel are the means for doing this. Marketing extension agents are not presently functioning in a way that will make a significant impact on the marketing process.
- o Extension-type information is not available to farmers and private sector exporters on a timely and practical basis. Private sector businessmen are especially critical of this lack of assistance. Some of the material prepared has been useful but expensive, especially the SRD profiles. (See comments in Annex 8.)
- o While the quarterly newsletter is a good means of providing extension information, the private sector indicates that this is not sufficient to help solve their major problems. They need more direct hands-on assistance.
- o AMO support of the extension effort has been limited due to a lack of funds to provide vehicles, equipment and supplies. Without these, there can be no effective extension program.
- o AMO extension personnel are not currently assisting in the monitoring of pesticide use by farmers. The entire export program could be jeopardized if excess residues are found in Jordanian products.

### 2. Recommendations

- o Examine the status of AMO's extension service development within the context of the project, draw up guidelines and adopt a plan of action. (This is partly done at the Strategic Planning session, but not carried through).

- o Analyze the needs of AMO's extension agents and develop a means to provide mobility on a regular basis so that its agents can plan their activities with some degree of confidence that they can carry them through.
- o Conduct intensive training and technical assistance in pesticide monitoring for AMO's extension staff. This should be coordinated with NCARTT's staff and with the residue analysis laboratory.

L. GOJ Financial Support

1. Findings and conclusions

- o GOJ support for AMO has fallen far short of that promised in the Project Agreement.
- o The government has been under extreme financial pressure in recent years, hence its inability to comply with its agreement.
- o The government has not utilized funds provided by USAID from CIP and 416 b proceeds for support of AMO, except in a minor way.
- o If USAID's financial support diminishes, AMO's need for support from the GOJ will increase because many of the activities undertaken by AMO have been funded by USAID. If the GOJ is unable to provide significant funding, and USAID does not continue to support the project, most of what has been accomplished to date will be lost.

2. Recommendations

- o Encourage the GOJ to increase its financial support and fully utilize the CIP and 416 b funds allocated by USAID for AMO's budget support without withdrawing funds normally budgeted for AMO.
- o Make future USAID assistance to the project dependent upon the provision by the GOJ of an adequate budget to more fully support the activities of AMO.

M. USAID Support

1. Findings and conclusions

- o USAID has contributed US\$ 5.0 million to the AMDP. The project's PACD is September 30, 1993. As of September 18, 1991, more than 80 percent of USAID funds had been spent or committed.

- o The three long-term persons contracted to work in the AMDP completed their tours as of September 30, 1991 or earlier. No contracted personnel were on the project as of October 1, 1991 but an interim project manager was expected during October.
- o The available funds remaining in the project are insufficient to cover the program that the evaluation team recommends.
- o The evaluation team rates the project as essentially successful to date. However, several important aspects of the project purpose have not been accomplished. The institutionalization of a policy analysis capability in AMO has not occurred. Assistance to the private sector has only recently begun to show some progress. The privatization of AMPCO's facilities has made no progress. While USAID's support of AMO has greatly improved AMO's capability to assist the marketing sector, AMO still needs time and further USAID support to develop its full capability and confidence to carry out its mandate.

## 2. Recommendations

- o Continue USAID's project support and amend the project paper to provide additional funds for the technical assistance, training, commodities, and administrative support that will be required. Without this additional support, much of what has been gained to date will be lost. This would be unfortunate since AMO is a much improved organization as a result of the project's activity to date.
- o Fill the project leader position with an institutional specialist who can work with AMO in organization, management and training and programmed for two years. A second long term position should be for an agribusiness specialist who would work directly with all aspects of the private sector. This specialist should be programmed for two years.
- o Provide assistance to AMO in establishing a policy analysis unit. This will require USAID funding for training and consultant support.
- o Insist that the GOJ increase its budgetary support of AMO and provide AMO staff with necessary vehicles, training and resources required to function effectively. AMO should utilize special currency funds that have been allocated by USAID.
- o Continue USAID support of overseas training, both long term and short term, with an emphasis on short term practical training in specialized fields such as quality control, pesticide monitoring, agribusiness, extension methods and

policy analysis. AMO has developed considerable experience in some areas, e.g., grades and standards, and should utilize its personnel to the extent possible in domestic training programs.

- o Focus on the institutional aspects of AMO in order to strengthen AMO's ability to function as an efficient autonomous marketing organization, and on assisting all aspects of the private sector involvement in the marketing process.
- o Support AMO in developing a capability in monitoring for pesticide residues, and for certification of products sold in export markets. This will be a new dimension of AMO's activities and will require considerable training, short term technical assistance and perhaps some facilities. Cooperation with NCARTT personnel and with the organizations engaged in laboratory analysis will be part of the overall pesticide monitoring program.
- o Insist that future efforts by the project involve AMO by giving it a stronger role than it has had in the past. The project should view its main role as one of supporting AMO's efforts to become an institution that can have a positive effect on the marketing process in Jordan to the end that farmer incomes are increased. AMO personnel should be integrated into any outside assistance that will be brought to Jordan by the project and be given credit for their contributions.

ANNEX 1

Scope of Work

- 51'

### 3. SCOPE OF WORK

#### A. Evaluation Team's General Scope of Work

1. Assess Progress in Achieving Project Purpose.
  - a. The evaluation team will examine the relationship between project inputs and outputs to determine whether inputs are being provided in sufficient amount and in a timely manner to obtain desired outputs.
  - b. The evaluation team will study the relationship between project outputs and purpose to determine whether the outputs are being accomplished and are contributing to achievement of the project purpose.
  - c. In examining this progress in converting inputs to outputs and achieving the project purpose, the contractor will identify constraints and make recommendations for overcoming these constraints and thus improving progress.
2. Assess the continued Relevancy and Appropriateness of Project Design.
  - a. The evaluation team shall review the project purpose to determine its continued relevance to Jordan's needs in light of changes in the last 3 years in agricultural policy, economic conditions, and other changes.
  - b. If appropriate, the evaluation team shall recommend modifications to the project's objectives and plans in order to achieve the project purpose and/or any follow up activities to build on project achievements.
  - c. The evaluation team shall also examine the project design to determine if the planned inputs and outputs are appropriate for achieving the project purpose given any changes noted above.
3. The Team will complete the assessments in 1 and 2 above with a focus on agribusiness development and private sector development to expand and improve the markets for Jordanian fruits and vegetables.

been effective in achieving reasonably higher degree of efficiency in the marketing of fruit and vegetables in Jordan? in the Gulf? in Europe?

- 10) Was the recruitment of consultants well planned and in accordance with project technical assistance needs at the time? Were scopes of work appropriate? What areas need to be emphasized or changed?
- 11) What improvements, if any, need to be made in the management of the different project aspects or components?
- 12) Identify factors and constraints that may have contributed to delays in realizing certain project purposes, determine the requirements for accomplishing major project outputs, and recommend changes deemed necessary in this connection.

#### 4. METHODS AND PROCEDURES

The evaluation team will conduct interviews with the AMD project resident advisors, AMO and other concerned GOJ agencies, USAID officials, as well as the private sector firms and individuals. The team shall research project files and reports, and have access to all needed AMO and other GOJ official statistics. The answers, conclusions, and recommendations of the evaluation study shall be based on empirical findings.

#### I. TEAM COMPOSITION

The team will consist of two expatriate private consultants and one local hire (Jordanian). It is desirable for both expatriate team members to have agricultural experience in the Middle East.

The evaluation team will consist of the following:

- A. Marketing Economist/Team leader - will have overall responsibility for the evaluation, and the preparation of the final report. The team leader should have wide experience in designing, implementing, and evaluating agricultural development projects especially fruit and vegetable marketing projects involving institution-building components. The team leader must have a degree in Agricultural Marketing (preferably Ph.D) and a solid research background.
- B. Post Harvest Technology and Management Specialist - This individual will examine and evaluate progress made in developing a system for grades and standards. He/she will

review and evaluate work undertaken to establish the required specifications and to upgrade the skills of both AMO staff and the private sector on harvesting methods, pre-cooling, grading, packaging, and transportation. He/she should have a degree in Agriculture (preferably Ph.D in plant physiology) with a wide experience in Fruit and Vegetables post harvest practices.

C. Agricultural Economist (Local hire)

This individual shall have an M.S. or Ph.D degree in Agricultural economics with adequate experience in conducting agricultural marketing research in Jordan. The services of this person will be procured through a Personal Services Contract with USAID/Jordan.

6. TIME FRAME

The evaluation should begin o/a September 10, 1991 and be completed within three weeks. A 6-day work week is authorized. One additional week for the team leader to complete write up and discuss with Mission and GOJ will be allowed.

7. REPORTS

The evaluation team will prepare a final evaluation report and will also complete the relevant portions of AID's Project Evaluation Summary (PES) Report, which shall serve as the face sheet for the evaluation team final evaluation report. The team leader shall submit a draft of the final report, with executive summary and PES Face Sheet, to USAID and GOJ/AMO for review 5 days before departure from Jordan. The evaluation team shall ~~submit~~ <sup>FINAL</sup> conclusions and recommendations to USAID and GOJ/AMO in a formal briefing before departure. Briefings in AID/W shall also follow. Comments by USAID/Jordan and AMO on the draft report will be provided to the team leader before departing Jordan.

A final report of no less than 25 double-spaced pages, including a 3-5 page executive summary and the PES Report, shall be submitted to USAID within 20 days of departure of the team leader from Jordan. The report shall present in clear, brief fashion the team's findings, conclusions and recommendations. These shall be substantiated in the body of the report. The report shall also describe the methodology employed and the types of data used in the evaluation. Detailed information, data sheets, and other reference material including a copy of the Evaluation Scope of Work, the logical framework, a list of documents consulted, and individuals and agencies contacted shall be placed in appendices. The contractor shall transmit five copies of the final report to USAID Jordan. In addition to the five written copies, the Contractor shall submit therewith a diskette, containing a copy of the final report, in a USAID/Jordan-approved word processing package/format.

ANNEX 2

Selected Bibliography

ANNEX 2  
SELECTED BIBLIOGRAPHY

- AID. Jordan: Agricultural Marketing Development Project. Project Paper. Washington, D.C. 1988.
- AMO. Strategic Action Plans. Assisted by AMDP. Amman, Jordan. 1989-91.
- AMO. Cost of Production: Fruits and Vegetables. Amman, Jordan. 1990.
- Bessler, David A. and B. McCarl. An Assessment of The Economic Impact of The Jordanian Agricultural Cropping Pattern Program. AMDP. Amman, Jordan. Nov. 1989.
- Cardosa, Herman and K. Harrison. Design Analysis for the Central Wholesale Market in Amman. Amman, Jordan. Jan. 1991.
- Harrison, Kelly W. Semi-Annual Reports. AMDP. Amman, Jordan. 1989-91.
- Harrison, Kelly W., et al. Performance Evaluation of Fruit and Vegetable Wholesale Markets in Jordan. AMDP. Dec. 1989.
- Harrison, Kelly W. Costs of Production: Fruits and Vegetables. Amman, Jordan. 1990.
- Harrison, Kelly W. and A. Jabbarin. Evaluation of the Economic Benefits of Horticultural Exports to Europe. AMDP/AMO. Amman, Jordan. 1991.
- Harrison, Kelly W. Jordan's Comparative Advantage in EEC Horticultural Produce Market. AMDP. Amman, Jordan. June 1991.
- Ilker, Yilmaz. PostHarvest Technology of Fruits and Vegetables. AMDP. Amman, Jordan. 1989.
- Ilker, Yilmaz. Returnable Box System Used in Domestic Produce Marketing in Cyprus. AMDP. Amman, Jordan. Mar. 1991.
- Schermerhorn, William. Rapid Marketing Appraisal of Vegetable Crops in Jordan. Amman, Jordan. 1988.
- Scobie, Grant M., C. Youngblood. Horticultural Exports for Jordan: Prices, Policies and Prospects. AMDP. Amman, Jordan. Jan. 1990.
- Youngblood, C., Curtis, E., G. Scobie and M. El-Hurani. Macro-Economic Policies in Jordan: Implications for Horticultural Exports. Amman, Jordan. 1989.
- Zagary, Devon. Manual for Packing Fresh Produce in Jordan. AMDP. Amman, Jordan. Aug. 1990.

ANNEX 3

Literature Review

ANNEX 3  
LITERATURE REVIEW (AMDP)

1. Ilker, Yilmaz and M. Haddadin. Testing Suitability of Newly Designed Cardboard Box. MEMO August 1990.
2. Ilker, Yilmaz. Postharvest Handling of Perishable Commodities. University of Jordan Seminar. MEMO December 1990.
3. Ilker, Yilmaz. Afmanena Postharvest Workshop in Nicosia, Cyprus. MEMO December 1990.
4. Ilker, Yilmaz. Overland Trial Shipment of Jordanian Produce to West Germany and Belgium. Tactic Brief No. 12, 13, 23. 1990.
5. Ilker, Yilmaz. Visits to Produce Exporters to Europe. Tactic Brief No. 23. MEMO December 1990.
6. Ilker, Yilmaz. Meetings with Fresh Produce Exporters to Europe. MEMO July 1989.
7. Ilker, Yilmaz. Private Sector Observation Trip to Morocco. MEMO November 1990.
8. Ilker, Yilmaz. Current Status of "Superior" Variety Table Grapes in Jordan. MEMO June 1990.
9. Ilker, Yilmaz. Jordan Transportation Project. MEMO October 1989.
10. Ilker, Yilmaz. Cold Storage Facilities and Fresh Produce Wholesale Market in Irbid. MEMO March 1989.
11. Ilker, Yilmaz. Apple Growing Area of Shoubak. Trip Report I. June 1989.
12. Ilker, Yilmaz. Apple Growing Area of Shoubak. Trip Report II. July 1989.
13. Ilker, Yilmaz. Visit to Pesticide Residue Laboratory, Baqa' Valley. MEMO February 1989.
14. Ilker, Yilmaz and M. Haddadin. Trial Shipment to Gulf. Tactic Brief No. 13. MEMO July 1990.
15. Ilker, Yilmaz and A. Zu'Bi. Trip Report to Turkey. Fruit and Vegetable Production and Marketing. Tactic Brief No. 9, 20, 23. 1990. MEMO August 1990.

ANNEX 4  
Market Profiles

**SDR RESEARCH GROUP INC. MARKET PROFILES**  
**PREPARED FOR JORDAN AGRICULTURAL MARKETING ORGANIZATION**

Daines, Samuel., E. Hurlston and M. Thorpe. Jordanian Asparagus in European Markets. A Market Intelligence Profile. April 1991. Also, for Green Beans, Eggplant, Peppers, Tomatoes, Grapes, Melons, Strawberries.

**SRD RESEARCH GROUP INC.**  
**PRODUCTION AND POSTHARVEST MANUALS**

Himmelbrick, David G. and J. Ahrens. Grapes: Production and PostHarvest Manual. April 1991. Also, for Green Beans, Eggplant, Peppers, Tomatoes, and Melons.

Daines, Samuel R. and E. Hurlson. Transport Constraints and Options Report. SRD Research Group Inc. May 1990.

ANNEX 5

List of Persons Met

ANNEX 5  
PERSONS INTERVIEWED AND OR CONSULTED

Ab-Ahood, Abdullah	Inspection Office - AMO Central Market, Amman.
El-Bedour, Dr. Jamal	Director General Jordan Cooperative Organization.
El-Azab, Fahed	Director General - AMO
Fyad, Abdal Majid	Market Reporting Service. AMO Central Market, Amman.
Halaseh, Wail	Plant Manager Processing Operations. "AMPCO" El ARDA
Kafawien, Mohammad	Director of Amman Central Wholesale Market
Marto, Soueil	General Manager Eastern Farms/MARTO
Shukri, Khairuddin K.	General Manager Jordan Valley Farm Agricultural Co. "JOVAC"
Shwabhan, Ahmad	Inspection Office - AMO Central Market, Amman
Wir, Dr. Ayed	General Manager AMPCO

ANNEX 6

List of Exporters at Meeting for General Discussion  
of the European Market

ANNEX 6  
 LIST OF EXPORTERS PRESENT AT A MEETING HELD FOR  
 GENERAL DISCUSSION OF THE EUROPEAN MARKET  
 SEPTEMBER 22ND, 1991  
 PHILADELPHIA HOTEL, AMMAN, JORDAN

<u>THE EXPORTERS</u>	<u>NAME OF FIRM</u>
1. Abdullah Assabe'	AGRICO
2. Walid Awad	IMAS
3. Karim Haddadin	Haddadin Farms
4. Ihasan Farrah	Jwehan Farms
5. Zuhair Jwehan	Jwehan Farms
6. Fayez Abu Jaber	Intern. Abu Jaber Co.
7. Ali Sabri	Jordanian Company
8. Khaireddin Shukri	JOVAC
9. Ahlam Zash	Zash Co. for Agri. Equip.
10. Adel Qatamin & Ali Abu Hammoor	AGRIBCWA
11. Abdo Al-Addase	Abdo Al-Addase Co.
12. Habes Al-Fakuri	Int. Est. for Golden Farms
13. Fo'ad Tadrus	Al-Amlak
14. Moh'd Abu Seedo	Abu Seedo Establishment
15. Shaker Shorbaji	Shaker Shorbaji Est.
16. Walid Hekmat	W. Hekmat Est.
17. Augustin Samander	Eastern Company
18. Amer Jarmouri	Guest from Yemen
19. Othman Hmeed	Guest from Yemen
20. Zaid Lemsabbar	Jordanian Airlines

ANNEX 7

Agricultural Chemical Residues

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## ANNEX 7

### AGRICULTURAL CHEMICAL RESIDUES

- According to interviews and file search there appears to be very little emphasis on adopting monitoring or testing procedures in order to safeguard the entry of Jordan's agricultural exports to the EEC.
- A memorandum referenced to a pesticide residue laboratory located in Baqa'a, states the laboratory "is detecting high levels of pesticide residence in vegetables at concentration 20 X higher than International levels allowed" (Very high levels of residues are consistently detected from cucumbers, peppers and green beans produced in plastic tunnels).
- While there is an global market for agricultural commodities, world markets are imposing stricter regulations governing food safety. In order to enter a sophisticated export market, agricultural commodities must meet numerous standards regarding quality assurance including strict adherence to IB regulations governing food products. For example, Chilean grape producers and U.S. apple growers have suffered greatly because of pesticide and chemical use problems.
- The indirect cost of these types of "incidents", including marketing description, administrative and legal costs, and the addition of hundreds of new inspectors, can destroy exportation. What is also fatal, is that reaction to alleged contamination can be swift, and consumer confidence once lost, is slow to recover.

The operation of an analytical laboratory for testing crops for pesticides is only one major step in quality assurance. An equally important part of obtaining residue free products is to employ a system of field production monitoring from planting through harvest.

The following summarizes one method of monitoring:

1. Producer knowledge of any prior detected chemical residues (soil, etc.) must be reported.
2. Estimated harvest dates for each production field provides for programming laboratory services for testing samples in advance.
3. Producer must provide full disclosure of ALL agricultural chemicals used in the production of the crop for the specific field.
4. A Field Service Specialist (grower assigned, chemical applicator (should be certified), etc.), shall log/record all pesticide applications. The Data are examined for possible non-conformance.

5. A review of disclosed chemicals is made for each field and analytical procedures are reviewed by the laboratory services prior to or at time of pre-harvest sampling.
6. All samples are coded to avoid conflict of interest. Samples are deposited in cold box type containers with refrigerant and sealed for integrity of the same.
7. Following the laboratory analysis, a laboratory report will certify the sample is residue free, or below Tolerance for the SPECIFIED Field.

**RECOMMENDATION:**

AMDP downstream planning should include programming for in the field monitoring of agricultural for exportable commodities, and model for laboratory testing. Establishment of such a program will relate to a food safety position that should encourage importers to view Jordanian produce as superior in quality.

ANNEX 8

Evaluation Team's Perception of AMDP's SRD Production  
and Postharvest Technology Manuals and Other Reports

## ANNEX 8

### THE EVALUATION TEAM'S PERCEPTION OF AMDP'S SRD PRODUCTION AND POSTHARVEST TECHNOLOGY MANUALS AND OTHER REPORTS

An examination of the various reports classed as file memoranda, marketing distribution profiles, production manuals, etc., leads the evaluators to suggest the following comments:

1. The AMDP market intelligence profile presentations for prospective Jordanian produce in European markets are attractive and provide for a graphic rendering indicating seasonal profitability potentials and competition in the European markets. It would appear that a large amount of good information relates to consumption trends and price patterns. We view this production as costly and possibly could have been accomplished in a more prudent presentation containing the same valuable information.

2. The AMDP "production and postharvest technology manuals" prepared by the SRD Group are good generalized information, but not specific as to the need for a hands-on handbook built on Jordanian requirements.

The Evaluation team recommends that financial assistance be made available for preparation of a practical manual emphasizing Jordanian prerequisites, supported by off-shore assistance as needed.

3. The AMDP preparation of grading instruction bulletins (guides) in Arabic is nearly completed. They are in leaflet form for multiple distribution. For the immediate need to provide subject information downstream, the make up is acceptable. At a later date, hard cover binders should be deployed to inspectors.

4. The AMDP memoranda and reports covering field trips provides for a good insight as to subject matter. From our interviews there appears to be a "thinness" in some cases of subject follow up. Presumably, we could anticipate a follow up at a later date.

5. The AMDP inter office written communication information appears to be very good as to subject statement.

6. In our view we note a major key marketing information source is not in evidence. An upgraded compendium of buyers, brokers, wholesalers, produce handled, location and in some cases financial standing should be available.

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A2

ANNEX 9  
Project Consultancies

## ANNEX 9

### Project Consultancies

Donald Swanson--A training plan for AMO. April 1989  
Ralph Franklin--Computer training. June 1989  
William Berg--Management skills workshop. (3 times in 1989, 1990 and 1991)  
Curtis Youngblood, G.M. Scobie and M.H. El-Hurani--Macro-economic policies. Aug. 1989  
William Hargrave--Transportation. Oct. 1989  
David Bessler and Bruce A. McCarl--Cropping pattern program. Nov. 1989  
Norberto Quezada--Price policy. Feb. 1990  
SRD Associates--Preparation of market profiles for EEC markets. Various periods from Mar.  
1990 to mid-1991  
ASAC International--Fruit and vegetable processing. May 1990  
Devon Zagory--Fresh produce manual. Aug. 1990  
David Cayton and R. Tator--Pre-cooling and cold storage. Aug. 1990  
Clarence Mann--Strategic planning. Dec. 1990  
Hernan Cardoso--Design analysis for ACWM. Jan. 1991

**ANNEX 10**

**Success in Achieving Project Objectives/EOPS**

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ANNEX 10

SUCCESS IN ACHIEVING OBJECTIVES/EOPS                      AMO                      OCTOBER 1988 - OCTOBER 1991  
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 0            1            2            3            4            5            6            7            8            9            10  
 -----

1. POLICY

Workshops (Limited)  
 Price Control  
 Cropping Pattern  
 Wholesale Market  
 Macro - Economics

XXXXXXXXXXXXXXXXXXXXXXXXXXXX  
 XXXXXXXXXXXXXXXXXXXXXXX  
 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX  
 XXX  
 XXX

2. MARKET INFORMATION DOM.  
 OFFSHORE

XX  
 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

3. GRADES/STANDARDS

XX

4. PRIVATE SECTOR  
 EXTEM. ASSISTANCE  
 STRATEGY INPUT

XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX  
 XXXXXXXXXXXXXXX

5. TRAINING  
 Master's Degrees  
 Short Term Offshore  
 Short Term Jordan

XXXXXXXXXXXXXXXXXXXX  
 XXX  
 XXX  
 XXX

6. GOJ/USAID BUDGET SUPPORT

XXXXXXXXXXXXXXXX

7. PROMOTIONAL TOURS

XX

8. PRODUCT DIVERSIFICATION

XXXXXXXXXX

9. CONSULTANCIES

XXXXXXXXXXXXXXXXXXXXXXXXXXXX TRAINING XXXXXXXXXXXXXXXXXXXXXXX  
 XXXXXXXX OTHER    XXXXXXXXXXXXXXXXXXXXXXX

ANNEX 11

Summary of AMO's Needs

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## ANNEX 11

### Summary of AMO's Needs

#### Long-Term Assistance

1 Institutional and Organizational Specialist (2 years)  
1 Agribusiness Specialist (2 years)

#### Short-Term Assistance

Policy analysis (Buy-in with APAP - on-going relationship)  
Production and market forecasting - (2 p/m's)  
Market and information intelligence - (2 p/m's)  
Post Harvest Management (Buy-in with AID's R&D - on-going)  
Quality Control - (1 p/m)  
Pesticide monitoring and certification (3 p/m's)  
Publications (3 p/m,'s)

#### Training

MS training (2 to 3 persons during next 5 years)  
Hands-on training for 4-6 months (5 to 6 persons)  
Observational tours to Morocco and Turkey for farmers (10 to 15)

Pesticide monitoring and certification (2 for 4 months each)  
Grades and Standards - (one per year - 2 months)  
Publications - (2 person for 3 months each)  
English Language (continuous for staff)

#### Commodities

5 vehicles - (3 now; 2 next year)  
Replacement of duplicating machines (2)  
Printing equipment for publications  
Central computer processor and printer

#### Special Projects

Agricultural Marketing Analysis Fund (needs to be determined)  
Market Research and Development Fund (needs to be determined)

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